

A NEW SPECIES OF *PSAMMODIUS*  
FROM SAND DUNES OF CALIFORNIA  
(SCARABAEIDAE: APHODIINAE: EUPARIINA)

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*Psammodius doyeni* Cartwright, **new species**

*Holotype male*: Oval, 3.0 mm long, greatest width 1.7 mm; moderately shining, testaceous, head slightly reddish. Head convex; clypeus moderately emarginate, limiting angles rounded, lateral borders arcuate to and around inconspicuous genae, latter with few fine hairs; surface tuberculate, tubercles transversely elongate before middle, rounded above, separated by about their diameter; occiput smooth. Pronotum 1.2 mm wide, 0.65 mm long, convex; sides straight behind narrowly rounded anterior angles, rounded and weakly crenate posteriorly, partly hidden when viewed from directly above; sides very finely margined, fimbriate, with long, fine hairs near anterior angles, hairs much shorter around basal border; surface of pronotum smooth and shining with anterior transverse impressed row of close, moderately fine punctures not quite reaching impunctate anterior pronotal angles, another row parallel with basal margin reaching inward from lateral fovea almost to scattered median group each side of lightly impressed midline, a few scattered punctures between the 2 transverse lines and along base. Elytra globular, length 1.9 mm, width 1.7 mm, with very weak basal border broken by striae, lateral margins with very fine, long hairs, approximately 0.2 mm in length, striae fine, deep, strial punctures very slightly crenating intervals. Mesosternum finely shagreened, with traces of fine median carina. Metasternum rather deeply depressed at middle, length of metasternal midline and width of post-coxal plates subequal; very finely alutaceous outward to sides. First 2 abdominal sterna with transverse rows of short to moderate hairs; 3 following sterna with single transverse rows of long, fine, erect light colored hairs. Pygidium bordered apically with long fine hairs. Middle and hind femora each with complete posterior marginal line and row of 7 or 8 moderately long fine hairs close to line, femora also with row of hairs twice as long along anterior edge; posterior femora twice as wide, more convex than middle femora. Hind tibia slightly longer than twice the apical width, anteapical transverse ridge slightly interrupted at internal edge; terminal spurs very short, heavy, long spur twice as long as short spur and subequal to first tarsal segment; entire tarsus short and compact, length about equal to apical width of tibia. Apical spurs and tarsus of middle tibiae long and slender; long spur longer than first 2 tarsal segments combined and equal to apical width of tibia.

*Allotype female*: Length 2.9 mm, width 1.7 mm. Same data as holotype. Sexes apparently distinguishable only by dissection.

*Type-locality*: CALIFORNIA: *San Luis Obispo Co.*, Dune Lakes, 3 mi. S Oceano, 4 March 1977, in damp sand on North facing slopes, J. Doyen, Lot DL77-3. Holotype and allotype returned to University of California, Berkeley, to be deposited on indefinite loan at the California Academy of Sciences, San Francisco, California.

*Paratypes* (56): CALIFORNIA: *San Luis Obispo Co.*, same data as holotype (45); same locality, 20-III-1974, Doyen & Powell (2); same locality, 1-V-1975, J. Doyen, Lot DL75-4, *ex* stabilized dunes (2); same except 23-II-1975, Lot 0275-2, *ex* stabilized dunes (1); same except *ex Haplopappus-Lotus* litter (2); Pismo St. Beach, North Campground, 24-II-1975, J. Doyen, Lot PB75-2 (2); Morro Bay, sand spit, 2 mi. S Morro Bay, 5-III-1977, Rude & Doyen, Lot M077-3, in sand under *Calcite maritima* (1). *Monterey Co.*, Beach at Little Sur R., 17-I-1976, J. Doyen (2). Paratypes in U. S. National Museum of Natural History and University of California, Berkeley. The paratypes vary from 2.6 to 3.0 mm in length.

*Remarks*: *Psammodius doyeni* will key to couplet 23 on page 419 in my revision of American *Psammodius*, Proceedings U. S. National Museum,

vol. 104, no. 3344, 1955. In this couplet it will key to *Psammodius mcclayi*, from which it differs as follows:

1. Dark reddish brown; pronotal punctures deep, moderately numerous; row of 4 or 5 punctures each side in remnant of intervening row between the 2 distinct transverse pronotal furrows....  
..... *P. mcclayi* Cartwright
- 1'. Light reddish testaceous; pronotal punctures weak, slightly smaller, fewer in number; very few punctures between the 2 transverse furrows..... *P. doyeri* Cartwright, new species

On direct comparison the pronotum of *P. doyeri* appears to be slightly shorter than that of *P. mcclayi* in relation to overall length.

*Psammodius doyeri* is another of the previously undescribed species of insects found in Dr. Alan Hardy's study of the desert sand dunes of California. It is named after Dr. John T. Doyen, collector of the type specimens.



## THE FAMILY PHENGODIDAE IN THE UNITED STATES

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It might interest readers in the United States that I have published a "Contribution to a revision of the Fam. Phengodidae" (Ent. Arbeiten Museum Frey, Tutzing, 27, 1976, pp. 415-524). This publication affects the nomenclature of several species occurring in the United States.

The examination of the tentorial pit obliged me to create the genus *Distremocephalus* for the following species of *Mastinocerus*: *M. texanus* Lec, *M. californicus* Van Dyke, and *M. opaculus* Horn.

*Cenophengus longicollis* is described from Texas.

The genus *Paraptorthodius* Schaeffer is revalidated, and characters are given for separation from *Cenophengus*.

### CORRECTION

A regrettable mistake occurred in my article on the genus *Phengodes* (Coleop. Bull. 29, 1975, p. 250). It should read:

#### Subgenus *Phengodella*

- 12(1'). Elytra more or less extensively brown only at base, remainder from dark to black ..... *P. frontalis* Lec.
- 12'. Elytra concolorous, from piceous to black ..... 13

The key remains unchanged otherwise.